

SAFAR-India (MUMBAI)

Indian Institute of Tropical Meteorology, Pune

Ministry of Earth Sciences

Air Quality Forecast for Diwali-2021

The Air Quality Forecast for the Diwali-2021 is issued based on the indigenously developed SAFAR-Air Quality Forecasting Framework. Forecast is based on following two model scenarios:

(1) Additional Firecracker emissions: Nil (0%)

(2) Additional Firecrackers: 50% of 2019 emissions. Above emissions are in addition to standard background emissions.

Highlights:

1. During the past one week, calm wind with relatively colder conditions are prevailing in Mumbai which favours trapping of pollutants. However, now it is warmer with high humidity.
2. With 50% firecracker emissions scenario, the prevailing weather conditions help degradation of air quality to very poor category on 5th November, the following day of Diwali.
3. Wind over Mumbai during Diwali period are expected to be coming from east direction with moderate speed.
4. The highest levels of PM10 and PM2.5 are expected between 1AM to 4AM on 5th Nov i.e., night of 4th and early morning hours of 5th Nov.
5. MOST POLLUTED AREA in Mumbai: Mazgoan, BKC-chowk & Malad.

SAFAR-AQI Forecast-MUMBAI				
Date	2 nd Nov	3 th Nov.	4 th Nov.	5 th Nov.
50 % Firecracker emissions				
PM 2.5 concentration($\mu\text{g}/\text{m}^3$)	108	105	129	182
AIR QUALITY INDEX (AQI)	260	250	307	348
0 % Firecracker emissions				
PM 2.5 concentration($\mu\text{g}/\text{m}^3$)	108	98	111	102
AIR QUALITY INDEX (AQI)	260	227	270	240

